IN THE CLAIMS:

Please AMEND claims 1-2, 6-7, 9-10, and 13-16; and

Please ADD claims 17-25, as shown below.

1. (Currently Amended) A radio equipment system ~~having a modular structure~~, ~~the system~~ comprising:

~~a baseband modem~~baseband means for modulating and demodulating;

~~a digital interface~~digital means for interfacing; and

~~a radio frequency unit~~radio frequency means for radio frequency communication including digitally operating radio frequency control means and radio frequency parts means,

wherein the ~~baseband modem~~baseband means and the ~~radio frequency unit~~radio frequency means respectively form physically separate modules ~~which~~ that are connected with each other by the ~~digital interface~~digital means for interfacing.

2. (Currently Amended) The system according to claim 1, wherein the module forming the ~~baseband modem~~baseband means comprises:

correction means for performing forward error correction coding and decoding; and

symbol mapping means for symbol mapping and demapping.

3. (Original) The system according to claim 1, wherein the radio frequency control means comprises respective control loops for pulse shape filtering, transmitter and receiver correction loops, timing recovery means for performing receiver timing recovery, and carrier recovery means for performing carrier timing recovery.

4. (Original) The system according to claim 3, wherein the transmitter and receiver correction loops comprise quadratic error correction means for performing quadratic error correction, balance error correction means for performing balance error correction, bias error correction means for performing bias error correction, and ~~a~~ gain error correction means for performing bias error correction.

5. (Original) The system according to claim 3, wherein the control loops are independent of the modulation or traffic type.

6. (Currently Amended) A method ~~of running a radio equipment, said method~~ comprising:

providing a radio equipment comprising physically separate modules of a baseband modem and a radio frequency unit including a digitally operating radio frequency control ~~means~~ unit and a radio frequency parts ~~means~~unit; and

providing a digital interface for connection of the baseband modem module and the radio frequency unit module with each other within the radio equipment.

7. (Currently Amended) The method according to claim 6, further comprising:

sending, from the baseband modem module to the radio frequency unit module, transmitter data including in phase component signals and quadratic phase component signals;

sending, from the baseband modem module to the radio frequency unit module, transmitter clock signals;

sending, from the baseband modem module to the radio frequency unit module, control signals providing support for type-specific functionalities;

sending, from the radio frequency unit module to the baseband modem module, receiver clock signals;

sending, from the radio frequency unit module to the baseband modem module, receiver data including in-phase component signals and quadratic phase component signals; and

exchanging, between the radio frequency unit module and the baseband modem module, microprocessor signals;

wherein each of said sendings ~~steps~~ and said exchanging ~~step~~ are driven by the digital interface.

8. (Original) The method according to claim 7, said method further comprising providing all signals as digital signals, and wherein a clock rate is provided as

a system symbol clock rate, except for a case that a function in the modem utilizes two samples per symbol where a double symbol rate frequency is supported.

9. (Currently Amended) The method according to claim 6, further comprising ~~the steps of~~:

forward error correction coding and decoding;

symbol mapping and demapping; and

implementing the forward error correction coding and decoding and symbol mapping and demapping ~~steps~~ in the baseband modem.

10. (Currently Amended) The method system according to claim 6, wherein the radio frequency control ~~means~~ unit within the module forming the radio frequency unit includes respective control loops performing pulse shape filtering, transmitter and receiver correction, receiver timing recovery, and carrier recovery.

11. (Original) The method according to claim 10, wherein the transmitter and receiver correction comprises a quadratic error correction, a balance error correction, a bias error correction, and a gain error correction.

12. (Original) The method according to claim 10, wherein the control loops perform independently of the modulation or traffic type.

13. (Currently Amended) An interface, comprising:

~~digital interface~~digital means for interfacing for connecting a ~~baseband modem~~baseband means for modulating and demodulating module with a ~~radio frequency unit~~radio frequency means for radio frequency communication module including digitally operating radio frequency control means and radio frequency part means within a radio equipment, wherein the ~~baseband modem~~baseband means module and the ~~radio frequency unit~~radio frequency means module are physically separated, and wherein the ~~interface~~ digital means is configured to perform the signal exchange between the modules.

14. (Original) The interface according to claim 13, wherein the signals are exchanged serially.

15. (Original) The interface according to claim 13, wherein the signals are exchanged in parallel.

16. (Currently Amended) The interface according to claim 13, further comprising:

first sending means for sending, from the ~~baseband modem~~baseband means module to the ~~radio frequency unit~~radio frequency means module, transmitter data including in-phase component signals and quadratic phase component signals;

second sending means for sending, from the ~~baseband modem~~baseband means module to the ~~radio frequency unit~~radio frequency means module, transmitter clock signals;

third sending means for sending, from the ~~baseband modem~~baseband means module to the ~~radio frequency unit~~radio frequency means module, control signals providing support for type-specific functionalities;

fourth sending means for sending, from the ~~radio frequency unit~~radio frequency means module to the ~~baseband modem~~baseband means module, receiver clock signals;

fifth sending means for sending, from the ~~radio frequency unit~~radio frequency means module to the ~~baseband modem~~baseband means module, receiver data including in-phase component signals and quadratic phase component signals; and

exchanging means for exchanging, between the ~~radio frequency unit~~radio frequency means module and the ~~baseband modem~~baseband means module, microprocessor signals.

17. (New) A radio equipment system, comprising:

a baseband modem;

a digital interface; and

a radio frequency unit including a digitally operating radio frequency control unit and a radio frequency parts unit,

wherein the baseband modem and the radio frequency unit respectively form physically separate modules that are connected with each other by the digital interface.

18. (New) The system according to claim 17, wherein the module forming the baseband modem comprises:

a correction unit configured to perform forward error correction coding and decoding; and

a symbol mapping unit configured to perform symbol mapping and demapping.

19. (New) The system according to claim 17, wherein the radio frequency control unit comprises

respective control loops configured to perform pulse shape filtering, transmitter and receiver correction loops,

a timing recovery unit configured to perform receiver timing recovery, and

a carrier recovery unit configured to perform carrier timing recovery.

20. (New) The system according to claim 19, wherein the transmitter and receiver correction loops comprise

a quadratic error correction unit configured to perform quadratic error correction,

a balance error correction unit configured to perform balance error correction,

a bias error correction unit configured to perform bias error correction, and

a gain error correction unit configured to perform bias error correction.

21. (New) The system according to claim 19, wherein the control loops are independent of the modulation or traffic type.

22. (New) A digital interface, configured to:

connect a baseband modem module with a radio frequency unit module including a digitally operating radio frequency control unit and a radio frequency part unit within a radio equipment, wherein the baseband modem module and the radio frequency unit module are physically separated; and

perform the signal exchange between the modules.

23. (New) The interface according to claim 22, wherein the signals are exchanged serially.

24. (New) The interface according to claim 22, wherein the signals are exchanged in parallel.

25. (New) The interface according to claim 22, further comprising:

a first sending unit configured to send, from the baseband modem module to the radio frequency unit module, transmitter data including in-phase component signals and quadratic phase component signals;

a second sending unit for sending, from the baseband modem module to the radio frequency unit module, transmitter clock signals;

a third sending unit configured to send, from the baseband modem module to the radio frequency unit module, control signals providing support for type-specific functionalities;

a fourth sending unit configured to send, from the radio frequency unit module to the baseband modem module, receiver clock signals;

a fifth sending unit configured to send, from the radio frequency unit module to the baseband modem module, receiver data including in-phase component signals and quadratic phase component signals; and

an exchanging unit configured to exchange, between the radio frequency unit module and the baseband modem module, microprocessor signals.